

RADIO FRONT END AND APPLICATIONS THEREOF

ABSTRACT OF THE DISCLOSURE

5 A radio front end includes a transformer and an adjustable load. The transformer includes a first winding and a second winding, wherein the first winding is operably coupled to an antenna and the second winding coupled to at least one of a power amplifier and a low noise amplifier. The adjustable load is operably coupled to the second winding, wherein the adjustable load provides a first impedance based on a first
10 impedance selection signal when the radio front end is in a transmit mode and provides a second impedance based on a second impedance selection signal when the radio front end is in a receive module such that impedance at the first winding is substantially similar in the transmit mode and in the receive mode.

15